February 8, 2002

Mr. Denny Criggar Director of Facilities Engineering Community Hospital East 1500 North Ritter Avenue Indianapolis, Indiana 46219

Re: **097-15007-00229**

First Minor Permit Revision to **FESOP 097-13830-00229**

Dear Mr. Criggar:

Community Hospital East was issued a Federally Enforceable State Operating Permit (FESOP) on June 22, 2001 for regulated air pollutant emissions from a stationary general medical and surgical hospital. An application requesting a change to the FESOP was received by the City of Indianapolis Office of Environmental Services on September 17, 2001. Community Hospital East requested that Boiler # 3 (Emission Unit ID B-3) be replaced in the FESOP by two (2) new boilers, specifically, Boiler # 4 (Emission Unit ID B-4) and Boiler # 5 (Emission Unit ID B-5).

Pursuant to 326 IAC 2-8-11.1(d)(6) (FESOP: Permit Revisions), the replacement boiler and the additional boiler qualify as a First Minor Permit Revision to the initial FESOP because the modification incorporates emission units that are subject to a New Source Performance Standard (NSPS) and the NSPS is the most stringent applicable requirement. However, this First Minor Permit Revision to the FESOP does not relieve the Permittee from any notification or performance testing requirements under 40 CFR 60 Subpart A (General Provisions).

Pursuant to the provisions of 326 IAC 2-8-11.1, the permit is hereby revised as outlined in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of the following revised permit pages to the front of the original permit. All other conditions of the permit shall remain unchanged and in effect.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Mark Caraher, at (317) 327-2272.

Sincerely.

Original Signed by Barbara A. Lawrence Barbara A. Lawrence Acting Administrator Office of Environmental Services

Attachments: FESOP Minor Permit Revision revised pages

Technical Support Document

Reviewer's Initials cc: file (2 copies) Mindy Hahn, IDEM

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY and INDIANAPOLIS OFFICE of ENVIRONMENTAL SERVICES

Community Hospital East 1500 North Ritter Avenue Indianapolis, Indiana 46219

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F097-13830-00229							
Issued by: Daniel B. Dovenbarger Administrator, ERMD City of Indianapolis	Issuance Date: June 22, 2001 Expiration Date: June 22, 2006						
First Minor Permit Revision No.: F097-15007-00229	Pages Affected: 1, 3, 4, 5, 27, 28, 29, 30a, 30b, 30c, 30d, 35 and 36						
Issued by: Original Signed by Barbara A. Lawrence	Issuance Date: February 8, 2002						
Barbara A. Lawrence Acting Administrator, OES City of Indianapolis							

C.12 Monitoring Methods [326 IAC 3]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.15 Compliance Monitoring Plan Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.17 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]
- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 FACILITY OPERATION CONDITIONS - Boilers B-1 and B-2

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-2]
- D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]
- D.1.3 Fuel Use Limitation [326 IAC 2-8-4]

Compliance Determination Requirements

- D.1.4 Testing Requirement [326 IAC 326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]
- D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.7 Record Keeping Requirements
- D.1.8 Reporting Requirements

D.2 FACILITY OPERATION CONDITIONS - All Generators (G-1, G-2, G-3, and G-4)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Fuel Use Limitation [326 IAC 2-8-4

Compliance Determination Requirements

D.2.2 Fuel Use Limitation

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.2.3 Record Keeping Requirements
- D.2.4 Reporting Requirements

D.3 FACILITY OPERATION CONDITIONS - Boilers B-4 and B-5

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.3.1 General Provisions Relating to NSPS [326 IAC 12][40 CFR 60, Subpart A]
- D.3.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2(a)][40 CFR 60, Subpart Dc][326 IAC 12-1]

- D.3.3 Particulate Matter [326 IAC 6-2-4]
- D.3.4 Opacity [40 CFR 60, Subpart Dc][326 IAC 12-1]
- D.3.5 Fuel Use Limitation [326 IAC 2-8-4]
- D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.3.7 Testing Requirement [326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]
- D.3.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.9 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.3.10 Record Keeping Requirements
- D.3.11 Reporting Requirements

Certification Form

Emergency Occurrence Report

Natural Gas Fired Boiler Certification

Quarterly Report Form for All Boilers (B-1, B-2, B-4 and B-5)

Quarterly Report Form for All Generators (G-1, G-2, G-3, and G-4)

Quarterly Deviation and Compliance Monitoring Report

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Office of Environmental Services (OES). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary general medical and surgical hospital.

Authorized individual: Mr. Denny Criggar

Source Address: 1500 North Ritter Avenue, Indianapolis, Indiana 46219
Mailing Address: 1500 North Ritter Avenue, Indianapolis, Indiana 46219

SIC Code: 8062

Source Location Status: Marion County

County Status: Attainment for all criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)

Minor Source under PSD or Emission Offset rules Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-1, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (b) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-2, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (c) One (1) Caterpillar Generator, model number 3516, installed on January 1, 1999, identified as emission unit G-1, with a maximum capacity of 2168 hp, using no controls, combusting No. 2 distillate oil, and exhausting to outside of the building.
- (d) One Cleaver Brooks Boiler, model number CB200-800, identified as emission unit ID B-4, with a maximum heat input capacity of 32.7 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhuasting to stack S-2. Installed in 2001.
- (e) One Cleaver Brooks Boiler, model number CB200-600, identified as emission unit ID B-5, with a maximum heat input capacity of 24.5 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhuasting to stack S-2. Installed in 2001.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

- (a) Combustion source flame safety purging on startup
- (b) Vessels storing lubricating oils, hydraulic oils, and machining fluids
- (c) Refractory storage not requiring air pollution control equipment
- (d) Filling drums, pails, or other packaging containers with lubricating oils, waxes, and

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (a) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-1, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (b) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-2, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM)[326 IAC 6-2-2]

Pursuant to 326 IAC 6-2-2 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions for boilers No. 1 and 2 shall be limited to 0.403 pounds per million BTU heat input.

These limitations are based on the following equation:

Pt =
$$0.87$$

where:

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

Q used is 123 mmBtu/hr.

D.1.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1][326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from each boiler shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.3 Fuel Use Limitation [326 IAC 2-8-4]

The total No. 2 oil combusted in all boilers (B-1, B-2, B-4 and B-5) shall be limited 2514.9 kilogallons or 2,514,900 gallons per rolling twelve (12) consecutive month period. This usage limit is equivalent to a potential to emit SO_2 of 89.3 tons per year. Compliance with this fuel usage limitation makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]

Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the sulfur dioxide limit specified in Condition D.1.2 or PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C.8 - Performance Testing.

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.1.2 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or,
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emissions Notations [326 IAC 5-1-2(2)]

- (a) Visible emission notations of the boilers' stack exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.7 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, D.1.3 and D.1.5, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit established in Condition D.1.2.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification requires certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the boiler stack S-1 exhaust while combusting fuel oil.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.4 and D.1.5 shall be submitted to the addresses listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee requires the certification by the "authorized individual" as defined by 326 IAC 2-1-1(1).
- (b) The Permittee shall certify, on the form provided, that natural gas was fired in the boiler at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (d) One Cleaver Brooks Boiler, model number CB200-800, identified as emission unit ID B-4, with a maximum heat input capacity of 32.7 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhuasting to stack S-2. Installed in 2001.
- (e) One Cleaver Brooks Boiler, model number CB200-600, identified as emission unit ID B-5, with a maximum heat input capacity of 24.5 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhuasting to stack S-2. Installed in 2001.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Emission Unit ID B-4 and B-5 as described in this section except when otherwise specified in 40 CFR Part 60, Subpart Dc.

D.3.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2(a)(3)][40 CFR 60, Subpart Dc][326 IAC 12-1]

- (a) Pursuant to 326 IAC 7-1.1-2(a)(3) (SO₂ Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):
 - (1) The SO₂ emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, each shall not exceed five tenths (0.5) pounds per million Btu heat input; or
 - (2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]
 - (3) Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.
- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, shall each not exceed five tenths (0.5) pounds per MMBtu heat input when combusting distillate oil.

D.3.3 Particulate Matter [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the Particulate Matter (PM) emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, each shall be limited to 0.3 pounds per million BTU heat input.

These limitations are based on the following equation:

Pt =
$$\frac{1.09}{0^{0.26}}$$

where:

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (mmBtu/hr)

Q used is 115 mmBtu/hr.

D.3.4 Opacity [40 CFR 60, Subpart Dc][326 IAC 12-1]

Pursuant to 40 CFR 60.43c(c) (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and 326 IAC 12-1 (New Source Performance Standards), opacity from Boiler # 4, identified as Emission Unit ID B-4, when firing distillate oil shall not exceed:

- (a) Twenty percent (20%) opacity (six minute average), except for one six (6) minute period per hour of not more than twenty seven percent (27%) opacity; and
- (b) The opacity standard shall apply at all times, except during periods of startup, shutdown or malfunction.

D.3.5 Fuel Use Limitation [326 IAC 2-8-4]

The total No. 2 oil combusted in all boilers (B-1, B-2, B-4 and B-5) shall be limited to 2514.9 kilogallons or 2,514,900 gallons per rolling twelve (12) consecutive month period. This usage limit is equivalent to a potential to emit SO_2 of 89.3 tons per year. Compliance with this fuel usage limitation makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5.

Compliance Determination Requirements

D.3.7 Testing Requirements [326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]

The Permittee is not required to test Boiler #4 and Boiler #5, identified as Emission Unit ID B-4 and B-5 by this permit. However, IDEM and OES may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM and OES, compliance with the Particulate Matter limit specified in Condition D.3.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.8 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance with Condition D.3.2, utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.9 Visible Emissions Notations

- (a) Visible emission notations of Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, stack exhaust shall be performed once per shift during normal daylight operations when firing distillate oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (6) below. Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and,

if the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report.

- (b) To document compliance with Condition D.3.9, the Permittee shall maintain records of visible emission notations of the Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4and B-5 stack exhaust when firing distillate oil.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.
- (d) When using natural gas, a record shell be maintained of the amount of fuel combusted each month. These records shall be retained for a period of two years following the date of such record.

D.3.11 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.3.5 shall be submitted to the address(es) listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the semiannual reporting period.
- (b) Pursuant to 40 CFR 60, §60.7, the owner of this source shall furnish the EPA, IDEM and

OES the following written notifications:

- (1) Of the date construction is commenced for each Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, postmarked no later than 30 days after such date.
- Of the anticipated date of initial startup of each boiler postmarked no more than 60 days nor less than 30 days prior to such date.
- (3) Of the actual date of initial startup date of each boiler postmarked within 15 days after such date.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION AND CITY OF INDIANAPOLIS OFFICE of ENVIRONMENTAL SERVICES

FESOP Quarterly Report

Source Name:	Community Hospital

Source Address: 1500 North Ritter Avenue, Indianapolis, IN. 46219 Mailing Address: 1500 North Ritter Avenue, Indianapolis, IN. 46219

FESOP No.: F097-13830-00229

Facility: All Boilers (B-1, B-2, B-4 and B-5)

Parameter: No. 2 Fuel Usage

Limit: 2,514,900 gallons per rolling twelve (12) consecutive month period

	Column 1	Column 2	Column 1 + Column 2
Month	Month This Month Previou		12 Month Total
Month 1			
Month 2			
Month 3			

QUARTER: ______YEAR: _____

9	No deviation occurred in this quarter.
9	Deviation/s occurred in this quarter. Deviation has been reported on:
	ted by:osition:re:

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION AND

CITY OF INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION (ERMD)

FESOP Quarterly Report

Source Name: Source Address: Mailing Address: FESOP No.: Facility: Parameter: Limit: QUA	1500 North Ritter Av F097-13830-00229 Keeler Boiler (B-3) Total Natural Gas A 131.6 mmcf per rolli	venue, Indianapolis, Indiana 46 venue, Indianapolis, Indiana 46 nd Equivalent Natural Gas Col ng twelve (12) consecutive mo uel oil is equivalent to 0.26 mn	3219 mbustion onth period
Marath	Column 1	Column 2	Column 1 + Column 2
Month	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
9 No d	eviation occurred in this — Deviation/s occurred — Deviation has been	d in this quarter.	
Title			

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality and City of Indianapolis Office of Environmental Services

Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name: Community Hospital East

Source Location: 1500 North Ritter Avenue, Indianapolis, Indiana

46219

County: Marion SIC Code: 8062

Operation Permit No.: F097-13830-00229
Operation Permit Issuance Date: June 22, 2001
Permit Revision No.: 097-15007-00229
Permit Reviewer: M. Caraher

The City of Indianapolis Office of Environmental Services (OES) and the Office of Air Quality (OAQ) have reviewed a revision application from Community Hospital East received September 17, 2001 relating to the construction and operation of additional indirect heating units. Specifically, Community Hospital East requested that Boiler # 3 (Emission Unit ID B-3) be replaced in the existing FESOP (F097-13830-00229) with two (2) new boilers identified as Boiler # 4 (Emission Unit ID B-4) and Boiler # 5 (Emission Unit ID B-5).

History

Community Hospital East was issued its initial FESOP (F097-13830-00229) on June 22, 2001.

On September 17, 2001, Community Hospital East submitted an application to the OES and OAQ requesting to replace Boiler # 3 (Emission Unit ID B-3) with two (2) new boilers (Emission Unit ID B-4 and B-5). Emission Unit ID B-3 (Boiler # 3) was capable of firing natural gas or distillate fuel oil and was rated at 65.0 MMBtu/hr. Emission Unit ID B-4 (Boiler # 4) is rated at 32.7 MMBtu/hr and Emission Unit ID B-5 (Boiler # 5) is rated at 24.5 MMBtu/hr. Each new boiler can fire natural gas or distillate fuel oil.

Emission Unit ID B-3 was previously subject to PM SIP limitations pursuant to 326 IAC 6-1-12. With the deletion of Emission Unit ID B-3, 326 IAC 6-1-12 is no longer applicable to Community Hospital East. Emission Unit ID B-3 was not previously subject to 40 CFR 60.40c (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and 326 IAC 12 (New Source Performance Standards). However, the two (2) new units are each subject to 40 CFR 60.40c and 326 IAC 12.

Existing Approvals

The source was issued a FESOP (F097-13830-00229) on June 22, 2001. The source has since been issued no Amendments, Modifications or Revisions.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S-1	Boiler # 3 (Emission Unit ID B-3)				
S-2	Boiler # 4 & Boiler # 5 (Emission Unit ID B-4 & B-5)	90.0	3.25	27,000	350

Recommendation

The staff recommends to the Administrator that the First Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 17, 2001.

Emission Calculations

See Appendix A page 1 through 5 of 5 of this document for detailed emissions calculations.

Potential To Emit Prior to Issuance of FESOP

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)				
	Existing FESOP Emission Units	New Emission Units (Boiler # 4 & Boiler # 5)	Total Sourcewide Emissions after new construction less Boiler # 3 deletion		
PM	5.8	3.5	7.1		
PM-10	4.1	3.5	5.4		
SO ₂	293.2	127.0	255.8		
VOC	3.0	1.4	2.8		
СО	45.3	21.0	42.3		
NO_x	77.0	35.8	72.1		
	HAP's				
highest Single HAP	0.2	0.2	0.4		
TOTAL HAP's	0.7	0.2	0.9		

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of Sulfur Dioxide (SO₂) is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The source has opted to limit SO₂ emissions in its initial FESOP issued June 22, 2001 under 326 IAC 2-8 (FESOP) such that 326 IAC 2-7 does not apply. SO₂ emissions for all of the boilers is limited to 89.3 tons per year by limiting No. 2 oil usage for all boilers to

2,514,900 gallons per year. SO_2 emissions for all the generators is limited to 9.7 tons per year by limiting diesel usage for all generators to 123,600 gallons per year. These emission limitations are established so that emissions are less than 100 tons per year and 326 IAC 2-7-2 does not apply.

(c) Pursuant to 326 IAC 2-8-11.1(d)(6), the addition of Boiler # 4 and Boiler # 5 to this existing permitted FESOP source qualifies as a FESOP Minor Permit Revision because the source was not previously subject to an NSPS, but is now subject to 40 CFR 60.40c (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and the NSPS is the most stringent applicable requirement (with regard to opacity and record keeping). The source is not requesting any revision to its currently permitted potential to emit and seeks to include the two (2) new boilers fuel usage under the existing federally enforceable fuel use limitation to limit SO₂ emissions to less than 89.3 tons per rolling twelve consecutive month period such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

(d) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1999 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.28
PM-10	0.28
SO ₂	0.16
VOC	0.1
CO	2.2
NO _x	36.49
HAP (specify)	Not reported

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)							
Process/facility	PM	PM PM-10 SO ₂ VOC CO NO _X HAPs						
Boiler B-1	1.0	1.0		0.7	10.7	12.7	0.2	
Boiler B-2	1.0	1.0	89.3(1)	0.7	10.7	12.7	0.2	
Boiler B-3	0.5(2)	0.5(2)		1.6	23.9	28.5	0.2	
Boiler B-4	2.0	2.0		0.8	12.0	20.5	0.2	
Boiler B-5	1.5	1.5		0.6	9.0	15.3	0.2	

All Generators	0.1	-	9.7(3)	0.8	15.6	28.8	-
Insignificant Activities	0.0	0.0	0.0	0.0	0.0	0.0	<2.5(5)
Total Emissions	5.6	5.5	<100(4)	3.6	58.0	90.0	<3.1(5)

- (4) Potential to emit SO₂ for all-three four boilers is limited restricting the No. 2 oil usage of all boilers combined to 2514.9 kilogallons (2,514,900 gallons) per year in order to keep boilers' potential SO2 emissions limited to 89.3 tons per year.
- (2) PM emissions for No. 3 Boiler are limited pursuant to 326 IAC 6-1-12 to 0.5 tons per year for each fuel. The following fuel limits shall be followed:
- (a) The usage of No. 2 oil in No. 3 Boiler is restricted to 500 kgal/year. This is equivalent to 0.5 tons PM emissions per year (without burning any other fuel)
- (e) The usage of natural gas in No. 3 Boiler to 131.6 MMcf/year. This is equivalent to 0.5 tons PM emissions per year (without burning any other fuel)
- (f) For operational flexibility 1 kgal of No. 2 fuel can be counted as (131.6/500) or 0.26 mmcf of natural gas usage, The sum of all natural gas and equivalent natural gas usage shall be limited to 131.6 mmcf per twelve (12) consecutive month rolling period.
- (3) All Generators are limited to 123,600 gallons per year which is equivalent to 500 hours of usage for each generator, so that generators' potential SO2 emissions are limited to 9.7 tons per year.
- (2) All Generators and Boilers are limited as noted in (1) and (3) above so that sourcewide SO2 emissions are less than 100 tons per year.
- (5) Ethylene Oxide Sterilization produces less than 2.5 tons per year of Ethylene Oxide emissions. Total combined HAPs emissions for the source are less than 2.5 + the other HAPs emissions.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	unclassifiable
SO ₂	maintenance attainment
NO_2	attainment
Ozone	maintenance attainment
СО	attainment
Lead	unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) The two (2) new emission units, Boiler # 4 (Emission Unit ID B-4) and Boiler # 5 (Emission Unit ID B-5), are each subject to the New Source Performance Standard, 326 IAC 12 and 40 CFR 60. 40c (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) because each boiler exceeds 10.0 MMBtu/hr maximum heat input and each boiler was manufactured after June 1989.

The NSPS limits SO₂ emissions for each unit to no greater than 0.5 lbs SO₂/MMBtu heat input when combusting distillate fuel oil and limits stack opacity to no greater than 20% opacity as a particulate matter (PM) standard when firing distillate oil. The NSPS also requires initial notification of NSPS applicability per affected unit and record keeping and reporting requirements for daily amounts of fuel(s) combusted and fuel sulfur content for fuel oil(s) combusted. No emission or opacity standard exists when combusting natural

gas.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.
- (c) Because Boiler # 3 (Emission Unit ID B-3) is being removed from service, 326 IAC 6-1-12(a) is no longer applicable to this source. 326 IAC 6-1-12(a) is a federally enforceable State Implementation Plan (SIP) in which Boiler # 3 was historically and previously limited to 0.014 pounds of particulate matter per MMBtu and 0.5 tons of particulate matter per year.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

The source has submitted an Emergency Reduction Plan (ERP) on December 12, 1996. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

Neither the source or the proposed addition of two (2) new boilers has the potential to emit greater than 10 tons per year of any single HAP nor does this source have the potential to emit greater than 25 tons per year of any combination of HAP. Therefore, 326 IAC 2-4.1 does not apply to this source.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x , and it is located in Marion County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

326 IAC 2-8 (Federally Enforceable State Operating Permit Program)

The source has potential to emit SO_2 in excess of 100 tons per year and has opted to have potential to emit enforceably restricted under 326 IAC 2-8 (Federally Enforceable State Operating Permit Program) to less than the major source threshold. The source has requested no change in its current FESOP fuel usage or ton per year limitations despite the addition of two (2) new units and the deletion of Boiler # 3 (Emission Unit ID B-3) from the current FESOP.

Pursuant to 326 IAC 2-8-4, the total distillate oil combusted in all boilers (Emission Unit ID B-1, B-2, B-4 and B-5) shall be limited to 2514.9 kilogallons per rolling twelve (12) consecutive month period. This usage limit is equivalent to a potential to emit SO_2 of 89.3 tons per year. Compliance with this fuel usage limitation makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations: Specified)

326 IAC 6-1-2(a) does not apply to this source because PM potential to emit does not exceed 100 tons per year nor does actual emissions exceed 10 tons per year. Therefore, the source is not limited to 0.03 grains per dry standard cubic foot of exhaust because 326 IAC 6-1-2(a) does not apply.

State Rule Applicability - Individual Facilities

Boiler #3

D.3

326 IAC 6-1-12 (Nonattainment Area Particulate Limitations: Marion County)

PM emissions for the # 3 Boiler are no longer limited pursuant to 326 IAC 6-1-12 to 0.5 tons per year because the # 3 Boiler is being removed from service and dismantled. Because Boiler # 3 is being removed from the source, the following changes are made to the existing FESOP as follows (deletions in strikeout and additions in bold):

- The Title Page page 1 of 39 was updated to reflect the name change from the City of Indianapolis Environmental Resources Management Division to the City of Indianapolis Office of Environmental Services (OES). The Table of Contents on pages 3 and 4 of 39 was changed to reflect the deletion of Boiler # 3 and the addition of a new D.3 Section for Boilers #4 and #5:
- D.1 FACILITY OPERATION CONDITIONS All Boilers (B-1 and B2 , B-2, and B-3) 27

 Natural Gas Fired Boiler Certification 34

 Quarterly Report Form for All Boilers (B-1, B-2, B-4 and B-5 and B-3) 35

 Quarterly Report Form for Keeler Boiler (B-3) 35

 Quarterly Report Form for All Generators (G-1, G-2, G-3, and G-4) 37

 Quarterly Deviation and Compliance Monitoring Report 38

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.3.1 General Provisions Relating to NSPS [326 IAC 12][40 CFR 60, Subpart A]
- D.3.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2(a)][40 CFR 60, Subpart Dc][326 IAC 12-1]

- D.3.3 Particulate Matter [326 IAC 6-2-4]
- D.3.4 Opacity [40 CFR 60, Subpart Dc][326 IAC 12-1]
- D.3.5 Fuel Use Limitation [326 IAC 2-8-4]
- D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.3.7 Testing Requirement [326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]
- D.3.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.9 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.3.10 Record Keeping Requirements
- D.3.11 Reporting Requirements
- The descriptions in Condition A.2 on page 5 of 39 have been revised to reflect the deletion of Boiler # 3 and the addition of Boiler # 4 (Emission Unit ID B-4) and Boiler # 5 (Emission Unit ID B-5).
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

- (a) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-1, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (b) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-2, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (c) One (1) Keeler Boiler, model number DS-10-11, installed in 1962, identified as emission unit B-3, with a maximum capacity of 65 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (d) (c) One (1) Caterpillar Generator, model number 3516, installed on January 1, 1999, identified as emission unit G-1, with a maximum capacity of 2168 hp, using no controls, combusting No. 2 distillate oil, and exhausting to outside of the building.
- (d) One Cleaver Brooks Boiler, model number CB200-800, identified as emission unit ID B-4, with a maximum heat input capacity of 32.7 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-2. Installed in 2001.
- (e) One Cleaver Brooks Boiler, model number CB200-600, identified as emission unit ID B-5, with a maximum heat input capacity of 24.5 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-2. Installed in 2001.
- 3) The deletion of Boiler # 3 effects the equipment description box in Section D.1 and requirements throughout Section D.1 as follows:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (a) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-1, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (b) One (1) Vogt Boiler, model number VV175, installed in 1956, identified as emission unit B-2, with a maximum capacity of 29 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1.
- (c) One (1) Keeler Boiler, model number DS-10-11, installed in 1962, identified as emission unit B-3, with a maximum capacity of 65 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-1

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.2 Particulate Matter (PM)[326 IAC 6-1-12]

Pursuant to 326 IAC 6-1-12 (Marion County SIP) emissions for the Keeler boiler (B-3) shall be limited to 0.5 tons per year and 0.014 lbs/mmBtu of Particulate Matter emissions.

D.1.23 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1][326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from each boiler shall not exceed five-tenths (0.5) pound per million Btu heat input while combusting fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.3.4 Fuel Use Limitation [326 IAC 2-8-4]

The total No. 2 oil combusted in all boilers (B-1, B-2, **B-4 and B-5** and **B-3**) shall be limited 2514.9 kilogallons or 2,514,900 gallons per rolling twelve (12) consecutive month period. This usage limit is equivalent to a potential to emit SO_2 of 89.3 tons per year. Compliance with this fuel usage limitation makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D 1.5 Fuel Use Limitation [326 IAC 6-1-12]

In order to comply with Condition D.1.2, the Permittee shall be limited to burning 131.6 mmcf of Natural Gas per rolling twelve (12) consecutive month period.

Compliance Determination Requirements

D.1.4 6 Testing Requirements [326 IAC 326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]

Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the sulfur dioxide limit specified in Condition **D.1.2** D.1.3 or PM limit specified in Condition **D.1.1** or D.1.2 shall be determined by a performance test conducted in accordance with Section C.8 - Performance Testing.

D.1.5.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition **D.1.2** D.1.3 shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or,
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.68 Visible Emissions Notations [326 IAC 5-1-2(2)]

- (a) Visible emission notations of the boilers' stack exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- The Compliance Response Plan for this unit shall contain troubleshooting contingency and (e) response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.7.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2 D.1.3, D.1.4 and D.1.5, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO₂ emission limit established in Condition D.1.2 D.1.3.
 - Calendar dates covered in the compliance determination period; (1)
 - Actual fuel oil usage since last compliance determination period and equivalent (2) sulfur dioxide emissions:
 - (3)A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification requires certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- A statement from the fuel supplier that certifies the sulfur content of the fuel oil. (6)
- To document compliance with Condition D.1.6 -D.1.8, the Permittee shall maintain records (b) of visible emission notations of the boiler stack S-1 exhaust while combusting fuel oil.
- All records shall be maintained in accordance with Section C General Record Keeping (c) Requirements, of this permit.

D.1.810 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.3 D.1.4 and D.1.5 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee requires the certification by the "authorized individual" as defined by 326 IAC 2-1-1(1).
- (b) The Permittee shall certify, on the form provided, that natural gas was fired in the boiler at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.
- 4) Because Boiler #3, identified as Emission Unit ID B-3, is being removed and replaced by two (2) new boilers, reporting of distillate fuel oil consumption on the Quarterly Report Form on page 35 of 39 must be modified as follows:

Source Name: Community Hospital

Source Address: 1500 North Ritter Avenue, Indianapolis, IN. 46219 Mailing Address: 1500 North Ritter Avenue, Indianapolis, IN. 46219

FESOP No.: F097-13830-00229

Facility: All Boilers (B-1, B-2, and B-3 B-4 and B-5)

Parameter: No. 2 Fuel Usage

Limit: 2,514,900 gallons per rolling twelve (12) consecutive month period

5) The deletion of Boiler # 3 also removes any requirement to quarterly report compliance with the previous Condition D.1.2 that was previously listed as follows:

D.1.2 Particulate Matter (PM) [326 IAC 6-1-12]

Pursuant to 326 IAC 6-1-12 (Marion County SIP) emissions for the Keeler boiler (B-3) shall be limited to 0.5 tons per year and 0.014 lbs/mmBtu of Particulate Matter emissions.

As a result, the FESOP Quarterly Report Form specific to Boiler # 3 that appeared on page 36 of 39 is no longer required to be submitted and is deleted as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION AND

CITY OF INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION (ERMD)

FESOP Quarterly Report

Source Name: Community Hospital

Source Address: 1500 North Ritter Avenue, Indianapolis, Indiana 46219
Mailing Address: 1500 North Ritter Avenue, Indianapolis, Indiana 46219

FESOP No.: F097-13830-00229
Facility: Keeler Boiler (B-3)

Parameter: Total Natural Gas And Equivalent Natural Gas Combustion
Limit: 131.6 mmcf per rolling twelve (12) consecutive month period

Each kgal of No. 2 fuel oil is equivalent to 0.26 mmcf of Natural Gas

Boilers # 4 & #5

326 IAC 2-8-11.1 (FESOP: Permit Revisions)

Pursuant to 326 IAC 2-8-11.1(d)(6), the addition of Boiler # 4 and Boiler # 5 to this existing permitted FESOP source qualifies as a FESOP Minor Permit Revision because the source was not previously subject to an NSPS, but is now subject to 40 CFR 60.40c (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and the NSPS is the most stringent applicable requirement (with regard to opacity and record keeping). The source is not requesting any revision to its currently permitted potential to emit and seeks to include the two (2) new boilers fuel usage under the existing federally enforceable fuel use limitation to limit SO_2 emissions to less than 89.3 tons per rolling twelve consecutive month period such that 326 IAC 2-7 (Part 70 Permit Program) does not apply.

326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)

This regulation applies to Boilers # 4 and # 5 since these emission units are indirect heaters, were installed after September 21, 1983, are located in Marion County, and 326 IAC 6-1-2 and 326 IAC 6-1-12 limitations do not apply to these boilers. Pursuant to 326 IAC 6-2-4 (Particulate Matter

Emission Limitations for Sources of Indirect Heating), the Particulate Matter (PM) emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, each shall be limited to 0.3 pounds per million BTU heat input.

These limitations are based on the following equation:

Pt =
$$\frac{1.09}{0^{0.26}}$$

where:

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (mmBtu/hr)

Q used is 115 mmBtu/hr (Boiler # 1 & Boiler # 2 each Q = 29.0 MMBtu/hr, Boiler # 4 Q = 32.7 MMBtu/hr and Boiler # 5 Q = 24.5 MMBtu/hr).

- 326 IAC 12 (New Source Performance Standards) and 326 IAC 7-1.1-2(a)(3) (Sulfur Dioxide Rules) 326 IAC 12 adopts by reference 40 CFR 60 which includes 40 CFR 60.40c (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units). 40 CFR 60.40c applies to the addition of Boiler # 4 and Boiler # 5 because each unit exceeds 10 MMBtu/hr maximum heat input and each unit was manufactured after June 1989. As a result, the dual fired units (natural gas and distillate oil) are subject to 40 CFR 60.40c which requires initial written notification of installation dates pursuant to 40 CFR 60 Subpart A, limits PM to 20% opacity when firing distillate oil and limits SO2 emissions when firing distillate oil to no greater than 0.5 pounds per million Btu of heat input which is identical to the SO2 emission limit as stated in 326 IAC 7-1.1-2(a)(3). As a result, Boiler # 4 and Boiler # 5 are limited to:
 - (a) Pursuant to 326 IAC 7-1.1-2(a)(3) (SO₂ Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):
 - The SO₂ emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, each shall not exceed five tenths (0.5) pounds per million Btu heat input; or
 - (2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]
 - (2) Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.
 - (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, shall each not exceed five tenths (0.5) pounds per MMBtu heat input when combusting distillate oil.

In addition, opacity is limited as follows:

Pursuant to 40 CFR 60.43c(c) (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and 326 IAC 12-1 (New Source Performance Standards), opacity from Boiler #4, identified as Emission Unit ID B-4, when firing distillate oil shall not exceed:

- (a) Twenty percent (20%) opacity (six minute average), except for one six (6) minute period per hour of not more than twenty seven percent (27%) opacity; and
- (b) The opacity standard shall apply at all times, except during periods of startup, shutdown or malfunction.

The source shall determine compliance by the following method(s):

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- The addition of two (2) NSPS boilers under 326 IAC 2-8-10(a)(15)(A) to the permit requires that the two boilers have their own separate D Section to incorporate the applicable provisions of Subpart A and Subpart Dc of 40 CFR 60 (Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units). Community Hospital East is not requesting any revision to the fuel use limitation that limits source wide potential to emit SO₂ to less than the major source threshold. Therefore, Boiler # 4 and Boiler # 5 are each included under the revised Fuel Use Limitation in Section D.1 as previously stated.

D.1.3.4 Fuel Use Limitation [326 IAC 2-8-4]

The total No. 2 oil combusted in all boilers (B-1, B-2, **B-4 and B-5** and **B-3**) shall be limited 2514.9 kilogallons or 2,514,900 gallons per rolling twelve (12) consecutive month period. This usage limit is equivalent to a potential to emit SO_2 of 89.3 tons per year. Compliance with this fuel usage limitation makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

The new D.3 Section is as follows:

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (d) One Cleaver Brooks Boiler, model number CB200-800, identified as emission unit ID B-4, with a maximum heat input capacity of 32.7 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-2. Installed in 2001.
- (e) One Cleaver Brooks Boiler, model number CB200-600, identified as emission unit ID B-5, with a maximum heat input capacity of 24.5 mmBtu/hr, using no controls, combusting either natural gas or No. 2 distillate oil and exhausting to stack S-2. Installed in 2001.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Emission Unit ID B-4 and B-5 as described in this section except when otherwise specified in 40 CFR Part 60, Subpart Dc.

D.3.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-2(a)(3)][40 CFR 60, Subpart Dc][326 IAC 12-1]

- (a) Pursuant to 326 IAC 7-1.1-2(a)(3) (SO₂ Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):
 - 1) The SO₂ emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, each shall not exceed five tenths (0.5) pounds per million Btu heat input; or
 - (2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]
 - (7) Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.
- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, shall each not exceed five tenths (0.5) pounds per MMBtu heat input when combusting distillate oil.

D.3.3 Particulate Matter [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the Particulate Matter (PM) emissions from Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, each shall be limited to 0.3 pounds per million BTU heat input.

These limitations are based on the following equation:

Pt =
$$\frac{1.09}{0^{0.26}}$$

where:

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (mmBtu/hr)

Q used is 115 mmBtu/hr.

D.3.4 Opacity [40 CFR 60, Subpart Dc][326 IAC 12-1]

Pursuant to 40 CFR 60.43c(c) (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and 326 IAC 12-1 (New Source Performance Standards), opacity from Boiler # 4, identified as Emission Unit ID B-4, when firing distillate oil shall not exceed:

- (a) Twenty percent (20%) opacity (six minute average), except for one six (6) minute period per hour of not more than twenty seven percent (27%) opacity; and
- (b) The opacity standard shall apply at all times, except during periods of startup, shutdown or malfunction.

D.3.5 Fuel Use Limitation [326 IAC 2-8-4]

The total No. 2 oil combusted in all boilers (B-1, B-2, B-4 and B-5) shall be limited to 2514.9 kilogallons or 2,514,900 gallons per rolling twelve (12) consecutive month period. This usage limit is equivalent to a potential to emit SO_2 of 89.3 tons per year. Compliance with this fuel usage limitation makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5.

Compliance Determination Requirements

D.3.7 Testing Requirements [326 IAC 2-8-5(a)(1),(4)][326 IAC 2-1.1-11]

The Permittee is not required to test Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5 by this permit. However, IDEM and OES may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM and OES, compliance with the Particulate Matter limit specified in Condition D.3.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.8 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance with Condition D.3.2, utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.9 Visible Emissions Notations

- (a) Visible emission notations of Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, stack exhaust shall be performed once per shift during normal daylight operations when firing distillate oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (6) below. Pursuant to 40 CFR 60 Subpart Dc, the fuel

oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and,

if the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report.

- (b) To document compliance with Condition D.3.9, the Permittee shall maintain records of visible emission notations of the Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4and B-5 stack exhaust when firing distillate oil.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.
- (d) When using natural gas, a record shell be maintained of the amount of fuel combusted each month. These records shall be retained for a period of two years following the date of such record.

D.3.11 Reporting Requirements

- A quarterly summary of the information to document compliance with Condition D.3.5 shall be submitted to the address(es) listed in Section C General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the semiannual reporting period.
- (b) Pursuant to 40 CFR 60, §60.7, the owner of this source shall furnish the EPA, IDEM and

OES the following written notifications:

- (1) Of the date construction is commenced for each Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, postmarked no later than 30 days after such date.
- (2) Of the anticipated date of initial startup of each boiler postmarked no more than 60 days nor less than 30 days prior to such date.

(3) Of the actual date of initial startup date of each boiler postmarked within 15 days after such date.

Compliance Requirements

Permits issued under 326 IAC 2-7are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- 1. Emission Unit ID B-4 and B-5 each have applicable compliance monitoring conditions as specified below:
 - (a) Visible emission notations of Boiler # 4 and Boiler # 5, identified as Emission Unit ID B-4 and B-5, stack exhaust shall be performed once per shift during normal daylight operations when firing distillate oil. A trained employee shall record whether emissions are normal or abnormal.
 - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
 - (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
 - (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
 - (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Conclusion

The operation of the additional boilers, Emission Unit ID B-4 and Emission Unit ID B-5 shall be subject to the conditions of the attached proposed First Minor Revision Permit No. 097-15007-00229.

APPENDIX A

Emission Unit ID B4 Boiler # 4 Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

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Small Industrial Boiler

Company Name: Community Hospital
Address City IN Zip: 1550 North Ritter Avenue

CP: 15007 Plt ID: 00229

Reviewer: MBC

Date: 02/26/02

Heat Input Capacity Potential Throughput

MMBtu/hr MMCF/yr

32.7 286.5

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				*see below		
Potential Emission in tons/yr	1.1	1.1	0.1	14.3	0.8	12.0

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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Appendix A: Emissions Calculations Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr) #1 and #2 Fuel Oil

Emission Unit ID B4

Boiler # 4 Company Name: Community Hospital

Address, City IN Zip: 1550 North Ritter Avenue

CP: 15007

PIt ID: 00229 Reviewer: MBC

Date: 02/26/02

Heat Input Capacity Potential Throughput S = Weight % Sulfur

MMBtu/hr kgals/year 0.5

32.7 2046.08571

Pollutant

Emission Factor in lb/kgal	PM* 2.0	SO2 71 (142.0S)	NOx 20.0	VOC 0.34	CO 5.0
Potential Emission in tons/yr	2.0	72.6	20.5	0.3	5.1

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Emission Unit ID B5 Boiler # 5 Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Small Industrial Boiler

Company Name: Community Hospital
Address City IN Zip: 1550 North Ritter Avenue

CP: 15007

PIt ID: 00229 Reviewer: MBC

Date: 02/26/02

Heat Input Capacity Potential Throughput

MMBtu/hr MMCF/yr

24.5 214.6

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				*see below		
Potential Emission in tons/yr	0.8	0.8	0.1	10.7	0.6	9.0

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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TSD Appendix A Page 4 of 5

Appendix A: Emissions Calculations Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr) #1 and #2 Fuel Oil

Company Name: Community Hospital Address, City IN Zip: 1550 North Ritter Avenue

CP: 15007
PIt ID: 00229
Reviewer: MBC
Date: 02/26/02

Heat Input Capacity Potential Throughput S = Weight % Sulfur

MMBtu/hr kgals/year 0.5

24.5

Pollutant

	PM*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	71	20.0	0.34	5.0
		(142.0S)			
Potential Emission in tons/yr	1.5	54.4	15.3	0.3	3.8

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

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Appendix A: Emissions Calculations Summary

Company Name: Community Hospital Address, City IN Zip: 1550 North Ritter Avenue

CP: 15007 Plt ID: 00229 Reviewer: MBC Date: 01/25/02

Potential To Fmit

Potential To Emit							
Pollutant	PM	PM10	SO2	NOx	VOC	СО	HAPs
B1Gas	1.0	1.0	0.1	12.7	0.7	10.7	2.25E-01
B1Oil	1.8		64.4	18.1	0.3	4.5	6.22E-03
Max	1.8	1.0	64.4	18.1	0.7	10.7	2.25E-01
B2Gas	1.0	1.0	0.1	12.7	0.7	10.7	2.25E-01
B2Oil	1.8		64.4	18.1	0.3	4.5	6.22E-03
Max	1.8	1.0	64.4	18.1	0.7	10.7	2.25E-01
B3Gas	2.2	2.2	0.2	28.5	1.6	23.9	2.25E-01
B3Oil	4.1		144.4	40.7	0.7	10.2	6.22E-03
Max	4.1	2.2	144.4	40.7	1.6	23.9	2.25E-01
B4Gas	1.1	1.1	0.1	14.3	0.8	12.0	2.25E-01
B4Oil	2.0	2.0	72.6	20.5	0.3	5.1	6.22E-03
Max	2.0	2.0	72.6	20.5	0.8	12.0	2.25E-01
B5Gas	0.8	8.0	0.1	10.7	0.6	9.0	2.25E-01
B5Oil	1.5	1.5	54.4	15.3	0.3	3.8	6.22E-01
Max	1.5	1.5	54.4	15.3	0.6	9.0	2.25E-01
Total	7.1	5.4	255.8	72.1	2.8	42.3	9.01E-01

89.3

Fuel Limitations for Burning Oil

Allowable SO2 Emissions = SO2Boilers-SO2Generators =

Allowable SO2

Potential

Emissions 89.3 Fuel Usage 7208.22857 kgal/year

Potential To Limited Fuel

Emit SO2 255.8 Usage 2515.5 kgal/year

Ratio 0.35

INCREASE in PTE due to Boiler # 3 Deletion and Boiler # 4 and Boiler # 5 Addition

Max	-4.1	-2.2	-144.4	-40.7	-1.6	-23.9	-2.25E-01
B4Gas	1.1	1.1	0.1	14.3	0.8	12.0	2.25E-01
B4Oil	2.0	2.0	72.6	20.5	0.3	5.1	6.22E-03
Max	2.0	2.0	72.6	20.5	0.8	12.0	2.25E-01
B5Gas	0.8	0.8	0.1	10.7	0.6	9.0	2.25E-01
B5Oil	1.5	1.5	54.4	15.3	0.3	3.8	6.22E-01
Max	1.5	1.5	54.4	15.3	0.6	9.0	2.25E-01
Total	-0.6	1.3	-17.4	-4.9	-0.2	-2.9	0.2

CHECK	:			
	2515.5 kgal/year X	142(%S) x	ton/2000=	89.3 tons/yr